



Complete Summary

GUIDELINE TITLE

Parameter on periodontitis associated with systemic conditions.

BIBLIOGRAPHIC SOURCE(S)

American Academy of Periodontology. Parameter on periodontitis associated with systemic conditions. J Periodontol 2000 May; 71(5 Suppl):876-9. [42 references]

COMPLETE SUMMARY CONTENT

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INSTITUTE OF MEDICINE (IOM) NATIONAL HEALTHCARE QUALITY REPORT

CATEGORIES

IDENTIFYING INFORMATION AND AVAILABILITY

SCOPE

DISEASE/CONDITION(S)

Periodontitis associated with systemic conditions, including:

- Diabetes Mellitus
- Female hormone alternations (puberty, menstrual cycle, pregnancy, menopause, oral contraceptives)
- Drug-induced disorder (drugs such as anticonvulsants, calcium channel blocking agents, and cyclosporin)
- Hematologic disorders/Leukemia
- Immune systems disorders (Human Immunodeficiency Virus [HIV] infection, Acquired Immunodeficiency Syndrome [AIDS], organ transplant recipients, bone marrow transplant recipients, chemotherapy recipients)

GUIDELINE CATEGORY

Assessment of Therapeutic Effectiveness

Diagnosis

Evaluation

Treatment

CLINICAL SPECIALTY

Dentistry

INTENDED USERS

Dentists

GUIDELINE OBJECTIVE(S)

To provide a parameter on periodontitis associated with systemic conditions.

TARGET POPULATION

Individuals with periodontitis associated with a systemic condition.

INTERVENTIONS AND PRACTICES CONSIDERED

Evaluation

1. Comprehensive periodontal evaluation
2. Identification of conditions suggestive of systemic disorders
3. Laboratory tests
4. Referral to/consultation with other health care providers

Treatment

1. Modification of therapeutic drug regimen
2. Periodontal therapy, including surgery
3. Plans for medical or periodontal emergencies
4. Antibiotic therapy
5. Surgery to eliminate gingival enlargement
6. Periodontal maintenance

MAJOR OUTCOMES CONSIDERED

Efficacy of therapy, as noted by changes in:

- Gingival inflammation
- Probing depths
- Clinical attachment
- Plaque levels
- Acute symptoms

METHODOLOGY

METHODS USED TO COLLECT/SELECT EVIDENCE

Searches of Electronic Databases

DESCRIPTION OF METHODS USED TO COLLECT/SELECT THE EVIDENCE

Not stated

NUMBER OF SOURCE DOCUMENTS

Not stated

METHODS USED TO ASSESS THE QUALITY AND STRENGTH OF THE EVIDENCE

Not stated

RATING SCHEME FOR THE STRENGTH OF THE EVIDENCE

Not applicable

METHODS USED TO ANALYZE THE EVIDENCE

Review

DESCRIPTION OF THE METHODS USED TO ANALYZE THE EVIDENCE

Not stated

METHODS USED TO FORMULATE THE RECOMMENDATIONS

Not stated

RATING SCHEME FOR THE STRENGTH OF THE RECOMMENDATIONS

Not applicable

COST ANALYSIS

A formal cost analysis was not performed and published cost analyses were not reviewed.

METHOD OF GUIDELINE VALIDATION

Internal Peer Review

DESCRIPTION OF METHOD OF GUIDELINE VALIDATION

Approved by the Board of Trustees, American Academy of Periodontology, May 1999.

RECOMMENDATIONS

MAJOR RECOMMENDATIONS

Clinical Diagnosis

Patient Evaluation

A comprehensive periodontal evaluation should be performed as described in the Parameter on Comprehensive Periodontal Examination.

Conditions which are suggestive of systemic disorders should be identified:

- Physical disabilities
- Signs or symptoms of xerostomia, mucocutaneous lesions, gingival overgrowth, excessive gingival hemorrhage, or other indicators of undetected or poorly-controlled systemic disease
- Therapeutic drug use
- Signs or symptoms of smoking, chemical dependency, and other addictive habits
- History of recent or chronic diseases
- Evidence of psychological/emotional factors
- History of familial systemic disease

Request laboratory tests as appropriate.

Referral to or consultation with other health care providers should be made and documented when warranted.

Therapeutic Goals

The therapeutic goal is to achieve a degree of periodontal health consistent with the patient's overall health status. The treatment outcome of periodontal therapy in the patient with contributing systemic factors may be directly affected by the control of the systemic condition. The systemic and psychological status of the patient should be identified to reduce medical risks that may compromise or alter the periodontal treatment.

Treatment Considerations

Patients with systemic conditions that contribute to progression of periodontal diseases may be successfully treated using established periodontal treatment techniques (see Parameter on Adult Periodontitis). However, the systemic/psychological status of the periodontal patient may alter the nature of therapy rendered and may adversely affect treatment outcomes.

Metabolic Conditions

Diabetes Mellitus

Patients with undiagnosed or poorly-controlled Type 1 (insulin dependent) diabetes mellitus or Type 2 (non-insulin dependent) diabetes mellitus may be particularly susceptible to periodontal diseases. Conversely, most well-controlled diabetic patients can maintain periodontal health and will respond favorably to periodontal therapy. Treatment considerations for patients with periodontitis associated with diabetes should include:

1. Identification of signs and symptoms of undiagnosed or poorly controlled diabetes mellitus.
2. Consultation with patient's physician as necessary.
3. Consideration of diagnosis and duration of diabetes; level of glycemic control; and medications and treatment history.
4. Recommendation that diabetic patients take medication as prescribed and maintain an appropriate diet on the day of periodontal therapy.
5. Consideration of adjunctive systemic antibiotic for periodontal procedures if the diabetes is poorly controlled.
6. Attempts to reduce stress/anxiety.
7. Preparation to diagnose and manage medical emergencies associated with diabetes.

Pregnancy

Hormonal fluctuations in the female patient may alter the status of periodontal health. Such changes may occur during puberty, the menstrual cycle, pregnancy, or menopause. Changes may also be associated with the use of oral contraceptives. The most pronounced periodontal changes occur during pregnancy. Treatment considerations for pregnant patients with periodontal disease include:

1. Consultation with the patient's physician as necessary.
2. Consideration of postponement of periodontal treatment during the first trimester.
3. Performance of emergency periodontal treatment at any time during pregnancy.
4. Consideration of deferral of periodontal surgery until after parturition.
5. Performance of periodontal maintenance as needed.
6. Administration of antibiotics and other drugs with caution.
7. Use of local anesthesia in preference to general anesthesia or conscious sedation.

Drug-Induced Disorders

Drugs can be a contributing etiologic factor in periodontal diseases. Drugs such as anticonvulsants, calcium channel blocking agents, and cyclosporin may be associated with gingival enlargement. Oral contraceptives may be a contributing factor in alterations of gingival tissues. In addition, drugs can cause xerostomia, osteoporosis, lichenoid, and other hypersensitivity reactions. Treatment considerations for patients affected by drug-induced periodontal disease may include:

1. Consultation with patient's physician as necessary.

2. When possible, baseline periodontal evaluation prior to initiation or modification of drug therapy.
3. Modification of the drug regimen prescribed in consultation with the physician if gingival enlargement or other adverse drug reactions or side effects occur.
4. Surgery as necessary to eliminate gingival enlargement. Patients should be informed that gingival enlargement may recur if drug therapy can not be modified or in the absence of adequate plaque control.

Hematologic Disorders/Leukemia

Hemorrhagic gingival enlargement with or without necrosis is a common early manifestation of acute leukemia. Patients with chronic leukemia may experience similar but less severe periodontal changes. Chemotherapy or therapy associated with bone marrow transplantation may also adversely affect the gingiva. Considerations for patients with hematologic disorders and periodontal disease should include:

1. Coordination of treatment with the patient's physician.
2. Minimization of sites of periodontal infection by means of appropriate periodontal therapy prior to the treatment of leukemia and/or transplantation.
3. Avoidance of elective periodontal therapy during periods of exacerbation of the malignancy or during active phases of chemotherapy.
4. Consideration of antibiotic coverage for emergency periodontal treatment when granulocyte counts are low.
5. Monitoring for evidence of host-versus-graft disease and of drug-induced gingival overgrowth following bone marrow transplantation.
6. Periodontal therapy, including surgery, for patients with stable, chronic leukemia.

Immune Systems Disorders

Some forms of periodontal disease may be more severe in individuals affected with immune system disorders. Patients infected with human immunodeficiency virus (HIV), may have especially severe forms of periodontal disease. The incidence of necrotizing periodontal diseases and necrotizing periodontitis may increase in the patient with acquired immunodeficiency syndrome (AIDS). Patients who have received organ transplants or are undergoing cancer treatment, or have certain autoimmune diseases may be taking immunosuppressing medications. Special considerations for immune system disorder patients with periodontal disease include:

1. Consultation and coordination of treatment with patient's physician as necessary.
2. Controlling associated mucosal diseases and acute periodontal infections.
3. Administration of systemic or local medications (for example, antibiotics) only if indicated and administered in a manner that avoids opportunistic infections and adverse drug interactions.

Outcomes Assessment

The predictability of the outcome may be enhanced through close medical/dental coordination.

A satisfactory outcome of therapy in patients with systemic disorders may include:

1. Significant reduction of clinical signs of gingival inflammation
2. Reduction of probing depths
3. Stabilization or gain of clinical attachment
4. Reduction of clinically detectable plaque to a level compatible with gingival health
5. Control of acute symptoms

Due to the complexity of systemic factors, control of periodontal diseases may not be possible. In such instances, a reasonable treatment objective is to slow the progression of the periodontal disease. Progression of the disease may be characterized by the presence of:

1. Persistent inflammation/infection of the gingival tissues
2. Persistent or increasing probing depths
3. Lack of stability of clinical attachment
4. Persistent clinically detectable plaque levels not compatible with gingival health
5. Radiographic evidence of progressive bone loss

In patients where the periodontal condition does not resolve, additional therapy may be required as well as further evaluation of the patient's systemic condition.

CLINICAL ALGORITHM(S)

None provided

EVIDENCE SUPPORTING THE RECOMMENDATIONS

TYPE OF EVIDENCE SUPPORTING THE RECOMMENDATIONS

The type of supporting evidence is not specifically stated for each recommendation.

BENEFITS/HARMS OF IMPLEMENTING THE GUIDELINE RECOMMENDATIONS

POTENTIAL BENEFITS

- Achieving a degree of periodontal health consistent with the patient's overall health status.
- Identification of systemic and psychological status of the patient to reduce medical risks that may compromise or alter the periodontal treatment.

POTENTIAL HARMS

Not stated

QUALIFYING STATEMENTS

QUALIFYING STATEMENTS

1. Each parameter should be considered in its entirety. It should be recognized that adherence to any parameter will not obviate all complications or post-care problems in periodontal therapy. A parameter should not be deemed inclusive of all methods of care or exclusive of treatment appropriately directed to obtain the same results. It should also be noted that these parameters summarize patient evaluation and treatment procedures which have been presented in more detail in the medical and dental literature.
2. It is important to emphasize that the final judgment regarding the care for any given patient must be determined by the dentist. The fact that dental treatment varies from a practice parameter does not of itself establish that a dentist has not met the required standard of care. Ultimately, it is the dentist who must determine the appropriate course of treatment to provide a reasonable outcome for the patient. It is the dentist, together with the patient, who has the final responsibility for making decisions about therapeutic options.

IMPLEMENTATION OF THE GUIDELINE

DESCRIPTION OF IMPLEMENTATION STRATEGY

An implementation strategy was not provided.

INSTITUTE OF MEDICINE (IOM) NATIONAL HEALTHCARE QUALITY REPORT CATEGORIES

IOM CARE NEED

Getting Better

IOM DOMAIN

Effectiveness
Patient-centeredness
Safety

IDENTIFYING INFORMATION AND AVAILABILITY

BIBLIOGRAPHIC SOURCE(S)

American Academy of Periodontology. Parameter on periodontitis associated with systemic conditions. J Periodontol 2000 May; 71(5 Suppl):876-9. [42 references]

ADAPTATION

Not applicable: The guideline was not adapted from another source.

DATE RELEASED

1996 Oct (revised 2000 May)

GUIDELINE DEVELOPER(S)

American Academy of Periodontology - Professional Association

SOURCE(S) OF FUNDING

American Academy of Periodontology

GUIDELINE COMMITTEE

Ad Hoc Committee on Parameters of Care

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FINANCIAL DISCLOSURES/CONFLICTS OF INTEREST

Not stated

GUIDELINE STATUS

This is the current release of the guideline. It is an update of a previously issued document (Parameters of care. Chicago (IL): American Academy of Periodontology; 1996 Oct. 56-62 [28 references]).

This publication has been edited to reflect decisions by the Board of Trustees in approving the term "periodontal maintenance" in lieu of "supportive periodontal therapy" (January 2000) and a new classification of periodontal diseases, as published in the Annals of Periodontology, December 1999; Volume 4, Number 1 (April 2000).

An update is not in progress at this time.

GUIDELINE AVAILABILITY

The complete set (13 parameters) of the American Academy of Periodontology Parameters of Care can be downloaded from the Academy's Web site. An Adobe Acrobat Reader is required to download the publication.

To access the Academy's Web site, go to www.perio.org. To access a copy of the Parameters of Care, go to www.perio.org/resources-products/pdf/parameters.pdf.

AVAILABILITY OF COMPANION DOCUMENTS

This is one of 13 practice parameters available in the American Academy of Periodontology Parameters of Care. This journal supplement includes a Foreword and an Overview.

To access the Academy's Web site, go to www.perio.org. To access a copy of the Parameters of Care, go to www.perio.org/resources-products/pdf/parameters.pdf.

PATIENT RESOURCES

None available

NGC STATUS

This is an update of a previously issued summary that was originally completed by ECRI on March 25, 1999, was verified by the guideline developer on April 26, 1999, and was published to the NGC Web site in May 1999. The updated summary was verified by the guideline developer as of October 17, 2000.

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